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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,085	03/26/2001	Douglas Miller	52126.00006	2845
33318	7590	02/08/2006	EXAMINER	
DIGEO, INC.			LAMBRECHT, CHRISTOPHER M	
8815 122ND NE			ART UNIT	
KIRKLAND, WA 98033			PAPER NUMBER	

2611

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,085

Applicant(s)

MILLER ET AL.

Examiner

Christopher M. Lambrecht

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8-17,19-21 and 27-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8-17,19-21 and 27-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 4, 6, 8–17, 19–21, and 27–34 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's failure to adequately traverse facts Officially noticed in the previous Office action is treated as an admission of the facts noticed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

-or-

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Frett (of record).

Regarding claim 1, FIG. 1 of Frett illustrates an apparatus [12] for determining a channel state of a set-top box (see col. 3, lines 32–60), the apparatus comprising:

- a sensing stage [22] (or 48, see FIG. 4) capable to detect light intensity from various positions on a display [18] and generating analog output signals based on light intensity detected from each of the various positions (see col. 4, lines 31–55; col. 5, lines 1–5; and col. 6, line 58 – col. 7, line 6);

Art Unit: 2611

- a comparison stage [28] (see FIG. 3) communicatively coupled to the sensing stage [22] and capable to generate digital values by comparison of each generated output signals with a threshold value [ambient light reference] (see col. 5, lines 15-35);
- an interface [28] communicatively coupled to the comparison stage [22] and capable to generate a feedback signal [channel detected] based upon the digital values to indicate a channel state of the set-top box (see col. 5, lines 46–53 and col. 6, lines 21–24); and
- an output [42] capable to transmit the feedback signal to a companion box device [central computer] for processing (col. 6, lines 27–32).

As to claim 6, see Frett as applied to claim 1, above.

5. Claims 8 and 27-34 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,469,634 to Williams et al. (hereinafter “Williams”).

Regarding claim 8, FIG. 1 of Williams illustrates a set-top box channel state system [100], comprising:

- a device including a plurality of light-sensing elements communicatively coupled to a display of a set top box [130], the display including a plurality of light emitting devices (see col. 4, lines 6–20 and col. 5, lines 2–6);
- a companion box device [110] communicatively coupled to the light-sensing elements (see col. 5, lines 2–6), the companion box device including
 - an infrared blaster [120] capable to send commands via an IR beam to the set-top box (see col. 3, lines 43–48),

Art Unit: 2611

- a character recognition engine capable to determine set top box channel state as displayed on the display based on the output of the light-sensing elements (see col. 5, lines 2-6 and col. 4, lines 18-26),
- a channel state analysis engine [235] (see FIG. 2) communicatively coupled to the character recognition engine and capable to determine if the channel state matches a desired channel state (see col. 8, lines 5-11), and
- a response engine [230] (see FIG. 2) communicatively coupled to the analysis engine and the IR blaster and capable to command the IR blaster to send a change channel command via IR beam to the set top box if the channel state does not match the desired channel state (see col. 8, lines 21-33).

Regarding claims 27-32 and 34, see Williams as applied to claim 8, above.

As to claim 33, Williams discloses the method of claim 30, wherein the channel state is determined by the companion box by comparing the signal information with values in a look-up table (see col. 8, lines 5-12).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frett in view of U.S. Patent No. 6,097,302 to Zinzell (hereinafter "Zinzell").

Regarding claims 3 and 4, Frett discloses the apparatus of claim 1, but fails to disclose the sensing stage comprises an array of light sensing devices, each of the light sensing devices capable to detect light intensity at a corresponding position on the display.

In an analogous art, FIG.3 of Zinzell illustrates a sensing stage comprising an array of light sensing devices [32, 33, . . . , 38], each of the light sensing devices capable to detect light intensity at a corresponding position on a display [20] (see col. 5, lines 8-22). Zinzell indicates that the disclosed arrangement provides independent monitoring of each individual light-emitting segment and reduces the occurrence of false readings due to ambient lighting (see col. 6, lines 62-67 and col. 5, line 56 – col. 6, line 2).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sensing stage of Frett to include an array of light sensing devices, each of the light sensing devices capable to detect light intensity at a corresponding position on the display, as taught by Zinzell, in order to achieve more reliable channel detection.

8. Claims 9, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Zinzell.

Regarding claims 9, 10, and 13, Williams discloses the apparatus of claim 8, but fails to disclose the sensing stage includes an array of photodiodes equal in number to the plurality of light-emitting devices in the display.

In an analogous art, FIG.3 of Zinzell illustrates a sensing stage comprising an array of photodiodes [32, 33, . . . , 38], equal in number to the plurality of light-emitting devices [22, 23, . . . , 28] in the display [20] (see col. 5, lines 8-22). Zinzell indicates that the disclosed arrangement provides independent monitoring of each individual light-emitting segment and reduces the

Art Unit: 2611

occurrence of false readings due to ambient lighting (see col. 6, lines 62–67 and col. 5, line 56 – col. 6, line 2).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sensing stage of Williams to include an array of photodiodes equal in number to the plurality of light-emitting devices in the display, as taught by Zinzell, in order to achieve more reliable channel detection.

Regarding claim 14, see Williams and Zinzell as applied to claim 9, above.

As to claim 15, Williams and Zinzell together disclose the method of claim 14, wherein determining the channel state includes using character recognition software (see Williams: col. 4, lines 18-26; col. 5, lines 2-6; and, col. 8, lines 5-12).

As to claim 16, Williams and Zinzell together disclose the method of claim 14, wherein the determining the channel state includes comparing the output with values in a look-up table (see Williams: col. 8, lines 5-12).

As to claims 17 and 19, see William and Zinzell as applied to claim 9, above.

Regarding claim 21, Williams and Zinzell together disclose the system of claim 14, but fail to disclose the device includes a second display configured to display the set top box channel state.

Official notice is taken of the fact that it is well known in the art for a second display device (e.g., television) to display the channel state of the set top box (e.g., on a window or banner of an

Art Unit: 2611

electronic programming guide, the channel number to which the set-top box is tuned is indicated), for the purpose of keeping the user informed of the channel to which the set-top box is tuned.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Williams and Zinzell to include a second display configured to display the set top box channel state, for the purpose of keeping the user informed of the channel to which the set-top box is tuned.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams.

Regarding claim 12, Williams discloses the system of claim 8, but fails to disclose the device includes a second display configured to display the set top box channel state.

Official notice is taken of the fact that it is well known in the art for a second display device (e.g., television) to display the channel state of the set top box (e.g., on a window or banner of an electronic programming guide, the channel number to which the set-top box is tuned is indicated), for the purpose of keeping the user informed of the channel to which the set-top box is tuned.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Williams to include a second display configured to display the set top box channel state, for the purpose of keeping the user informed of the channel to which the set-top box is tuned.

10. Claims 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams and Zinzell as applied to claims 10 and 19 above, and further in view of Armstrong (of record).

Regarding claims 11 and 20, Williams and Zinzell together disclose the systems of claims 10 and 19, but fail to disclose the array includes 32 by 16 light-sensing elements.

Art Unit: 2611

In an analogous art, Armstrong discloses an image sensor comprising an array of light sensing elements, and indicates the sensor array may be of any size.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the array of Williams and Zinzell to include any number of light sensing elements, e.g., 32 by 16 light-sensing elements, as taught by Armstrong, for the purpose of optimizing the array size for a particular application.

Art Unit: 2611

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Lambrecht whose telephone number is (571) 272-7297. The examiner can normally be reached from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached at (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher M Lambrecht
Examiner
Art Unit 2611

CML


HAI TRAN
PRIMARY EXAMINER